(3) 13H3 woven plastic with liner.
(4) 13H4 woven plastic, coated and with liner.
(5) 13H5 plastic film.
(6) 13L1 textile without coating or liner.
(7) 13L2 textile, coated.
(8) 13L3 textile with liner.
(9) 13L4 textile, coated and with liner.
(10) 13M1 paper, multiwall.
(11) 13M2 paper, multiwall, water resistant.

(b) Definitions for flexible intermediate bulk containers:

(1) *Flexible intermediate bulk containers* consist of a body constructed of film, woven plastic, woven fabric, paper, or combination thereof, together with any appropriate service equipment and handling devices, and if necessary, an inner coating or liner.

(2) *Woven plastic* means a material made from stretched tapes or monofilaments.

(3) *Handling device* means any sling, loop, eye, or frame attached to the body of the intermediate bulk container or formed from a continuation of the intermediate bulk container body material.

(c) Construction requirements for flexible intermediate bulk containers are as follows:

(1) The strength of the material and the construction of the flexible intermediate bulk container must be appropriate to its capacity and its intended use.

(2) All materials used in the construction of flexible intermediate bulk containers of types 13M1 and 13M2 must, after complete immersion in water for not less than 24 hours, retain at least 85 percent of the tensile strength as measured originally on the material conditioned to equilibrium at 67 percent relative humidity or less.

(3) Seams must be stitched or formed by heat sealing, gluing or any equivalent method. All stitched seam-ends must be secured.

(4) In addition to conformance with the requirements of § 173.24 of this subchapter, flexible intermediate bulk containers must be resistant to aging and degradation caused by ultraviolet radiation.

(5) For plastic flexible intermediate bulk containers, if necessary, protection against ultraviolet radiation must be provided by the addition of pigments or inhibitors such as carbon black. These additives must be compatible with the contents and remain effective throughout the life of the container. Where use is made of carbon black, pigments, or inhibitors, other than those used in the manufacture of the tested design type, retesting may be omitted if the carbon black content, the pigment content or the inhibitor content does not adversely affect the physical properties of the material of construction. Additives may be included in the composition of the plastic material to improve resistance to aging, provided they do not adversely affect the physical or chemical properties of the material.

(6) No used material other than production residues or regrind from the same manufacturing process may be used in the manufacture of plastic flexible intermediate bulk containers. This does not preclude the re-use of component parts such as fittings and pallet bases, provided such components have not in any way been damaged in previous use.

(7) When flexible intermediate bulk containers are filled, the ratio of height to width may not be more than 2:1.

[Amdt. 178–103, 59 FR 38068, July 26, 1994, as amended by Amdt. 178–108, 60 FR 40038, Aug. 4, 1995]

Subpart O—Testing of Intermediate Bulk Containers

SOURCE: Amdt. 178–103, 59 FR 38074, July 26, 1994, unless otherwise noted.

§ 178.800 Purpose and scope.

This subpart prescribes certain testing requirements for intermediate bulk containers identified in subpart N of this part.

§ 178.801 General requirements.

(a) *General.* The test procedures prescribed in this subpart are intended to ensure that intermediate bulk containers containing hazardous materials can